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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/620,715	07/20/2000	Hiroshi Niimi	FUJO 17.577	3322

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KATTEN MUCHIN ROSENMAN LLP
575 MADISON AVENUE
NEW YORK, NY 10022-2585

EXAMINER	
RYMAN, DANIEL J	
ART UNIT	**PAPER NUMBER**
2616	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/620,715	NIIMI ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 6-14* is/are rejected.

7)☒ Claim(s) *7 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The indicated allowability of claims 1-4 and 6-14 is withdrawn in view of the newly discovered reference(s) to Gardner et al. (USPN 5,857,147). Rejections based on the newly cited reference(s) follow.

2. In light of the withdrawal of the indication of allowability, the finality of the rejection of the last Office action is withdrawn.

Claim Objections

3. Claim 7 is objected to because of the following informalities: in line 3, "said allocation means" should be "said allocation unit". Appropriate correction is required.

4. Claim 11 is objected to because of the following informalities: in lines 1-10, the claim refers to "time slots" whereas, in lines 11-20, the claim refers to "logical channels". Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Gardner et al. (USPN 5,857,147).

7. Regarding claims 1, 9-11, and 13, Applicant admits as prior art a picture distribution system for distributing picture data from one or more sources to a plurality of receiving devices

using a distribution device (Fig. 1 and p. 2, lines 15-24), comprising: a network where a plurality of logical channels are established in a time division multiplex method (Fig. 3 and p. 2, line 25-p. 3, line 3, where a network including a plurality of logical channels is established, and p. 4, lines 7-16, where TDM is used); one or more distribution devices distributing picture data from the one or more sources to the plurality of receiving devices via a logical channel designated by a distribution instruction (p. 3, lines 8-21, where the disclosed "distribution request" is interpreted to be a "distribution instruction"); the plurality of receiving devices receiving picture data from respective logical channels designated by receiving instructions (p. 4 line 22-p. 5, line 14, where the receiving devices are assigned to particular logical channels); and an allocation unit allocating respective bandwidth to the plurality of logical channels used to transmit picture data according to a number of sources for picture data to be transmitted via the plurality of logical channels (p. 4, lines 14-21, where logical channels are assigned to particular time slots, such that the bandwidth of particular time slots is allocated by an "allocation unit" to individual logical channels, and where when there are more sources to be transmitted there will also be more bandwidth allocated such that the bandwidth is allocated according to the number of sources to be transmitted), wherein said allocation unit allocates a predetermined first bandwidth to each of the logical channels (p. 4, lines 14-21, where each logical channel is apparently assigned the equivalent of one time slot's worth of bandwidth).

Applicant does not admit as prior art that the allocation unit allocates a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of

logical channels exceeds the threshold number said allocation unit allocates the first bandwidth to each of a subset of the logical channels and a predetermined second bandwidth, which is obtained by dividing the first bandwidth by a predetermined integer, to each of another subset of the logical channels. Gardner teaches, in a system for allocating bandwidth, having an allocation unit allocate a given bandwidth to each of the logical channels when the number of sources of data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number (col. 2, lines 48-65, see also col. 3, lines 9-18, where a bandwidth is allocated to each source when "usage" is not too high, and col. 5, lines 51-54, where "usage" is based on the number of users accessing the system), and when the number of sources for data to be transmitted via the plurality of logical channels exceeds the threshold number said allocation unit allocates the given bandwidth to each of a subset of the logical channels and a reduced bandwidth to each of another subset of the logical channels (col. 2, lines 48-65, where when usage becomes too high the system decreases the average transmission rate of selection ones of the users, see also col. 3, lines 9-18). Gardner does this to maximize the total average service quality to users (col. 2, lines 43-47). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Gardner's bandwidth allocation system in Applicant's prior art system since this maximizes the total average service quality to users. As such, it would have been obvious to one of ordinary skill in the art to have Applicant's prior art allocation unit allocate a predetermined first bandwidth to each of the logical channels when the number of sources for picture data to be transmitted via the plurality of logical channels does not exceed a predetermined threshold number, and when the number of sources for picture data to be transmitted via the plurality of logical channels exceeds the threshold number to have the

allocation unit allocate the first bandwidth to each of a subset of the logical channels and a predetermined second bandwidth to each of another subset of the logical channels.

Applicant's admitted prior art in view of Gardner does not expressly disclose that the second bandwidth is obtained by dividing the first bandwidth by a predetermined integer. However, Applicant's admitted prior art in view of Gardner does disclose that the second bandwidth is reduced compared to the first bandwidth (Gardner: col. 2, lines 48-65). It is generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on Appellant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955); In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Here, Applicant's admitted prior art in view of Gardner discloses using a reduced value for the second bandwidth, such that it would have been obvious to one of ordinary skill in the art to use any reduced value, including dividing the first bandwidth by a predetermined integer, absent a showing of criticality by Applicant.

8. Regarding claim 2, Applicant's admitted prior art in view of Gardner discloses that said network is a ring-shaped transmission line (Applicant: Fig. 1 and p. 2, lines 24-25).

9. Regarding claim 3, Applicant's admitted prior art in view of Gardner discloses a determination unit determining the number of logical channels to be established in said network

(Gardner: col. 5, lines 51-54, where the number of users corresponds to the number of logical channels).

10. Regarding claim 4, Applicant's admitted prior art in view of Gardner discloses the allocation unit allocating respective bandwidth used to transmit picture data to the plurality of logical channels (Applicant: p. 4, lines 14-21, where each logical channel is allocation the bandwidth of a slot).

11. Regarding claim 6, Applicant's admitted prior art in view of Gardner suggests that priority is given in advance to the plurality of logical channels, and said allocation unit allocates respective bandwidth to the plurality of logical channels based on the priority given to each logical channel. Applicant's admitted prior art in view of Gardner discloses that "selected ones of the users" are given priority in advance (Gardner: col. 2, lines 57-63, where "selected ones of the users" suggests that some of the users are given priority in advance). Applicant's admitted prior art in view of Gardner also discloses that the logical channels are associated with particular users (Applicant: p. 4 line 22-p. 5, line 14, where the receiving devices are assigned to particular logical channels). Thus, one of ordinary skill in the art at the time of the invention would have recognized that giving priority to a user and giving priority to a logical channel are functionally equivalent since a user is tied to a given priority, such that it would have been obvious to one of ordinary skill in the art at the time of the invention to give priority in advance to the plurality of logical channels where the allocation unit allocates respective bandwidth to the plurality of logical channels based on the priority given to each logical channel.

12. Regarding claim 7, Applicant's admitted prior art in view of Gardner discloses that priority is given in advance to the plurality of receiving devices; and said allocation means

allocates respective bandwidth to said plurality of logical channels based on the priority given to each receiving device (Gardner: col. 2, lines 57-63, where "selected ones of the users" suggests that some of the users are given priority in advance).

13. Regarding claim 8, Applicant's admitted prior art in view of Gardner discloses that said distribution device generates a receiving instruction according to a received distribution instruction and transmits the receiving instruction to a corresponding receiving device via said network (Gardner: col. 2, lines 57-62, where the distribution device signals to the user the new rates).

14. Regarding claim 12, Applicant's admitted prior art in view of Gardner suggest that if third picture data are requested to be distributed while the first and second picture data are being distributed, said one or more distribution devices store the first picture data in the first time slot of the fixed-length frame, store the second and third picture data in the second time slot of the fixed-length frame, and transmit the fixed length frame to said network. Applicant's admitted prior art in view of Gardner discloses that the logical channels are mapped to time slots (Applicant: p. 4, line 8-p. 5, line 6). Applicant's admitted prior art in view of Gardner also discloses that the bandwidth of some logical channels is reduced when congestion occurs (Gardner: col. 2, lines 48-65, see also col. 3, lines 9-18). It is also generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent a showing of criticality in a particular recited value. The burden of showing criticality is on Appellant. In re Mason, 87 F.2d 370, 32 USPQ 242 (CCPA 1937); Marconi Wireless Telegraph Co. v. U.S., 320 U.S. 1, 57 USPQ 471 (1943); In re Schneider, 148 F.2d 108, 65 USPQ 129 (CCPA 1945); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955);

In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974); In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Thus, since Applicant's admitted prior art in view of Gardner discloses reducing the bandwidth of logical channels, it would have been obvious to one of ordinary skill in the art at the time of the invention to reduce the bandwidth of the logical channels in any way, including by placing multiple logical channels in a single time slot, absent a showing of criticality by applicant.

15. Regarding claim 14, Applicant's admitted prior art in view of Gardner discloses determining a number of logical channels to be established according to a number of sources for picture data to be transmitted via the plurality of logical channels (Gardner: col. 5, lines 51-54, where the number of users corresponds to the number of logical channels); and generating the distribution instruction based on the determined number of logical channels and allocated bandwidth (Gardner: col. 2, lines 57-62, where the distribution device signals to the user the new rates).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel J. Ryman
Examiner
Art Unit 2616

Daniel Ryman